IN THE CLAIMS

For the convenience of the Examiner, all claims have been presented whether or not an amendment has been made.

1. (Currently amended) A communications system comprising:

a mobile unit operable to transmit information;

a first base transceiver station (BTS) operable to receive the information, determine a first value for a metric associated with communications between the mobile unit and the first BTS, and generate a first graded packet encoding the first value and the information;

a second BTS operable to receive the information, determine a second value for a metric associated with communications between the mobile unit and the second BTS, and generate a second graded packet encoding the second value and the information; and

a router operable to receive selection group information, wherein the selection group information identifies the mobile unit, the first BTS, and the second BTS, to determine a selection group hierarchy using the selection group information, to determine a network address for communications from the mobile unit based on the selection group hierarchy, to receive the first graded packet and the second graded packet, ~~the router further operable~~ to select one of the graded packets for further communication, and to forward the selected one of the graded packets to the network address.

2. (Currently amended) The system of Claim 1, wherein the router is further operable to:

receive an outbound packet that includes a destination indicating the mobile unit;

~~determine a selection group associated with the mobile unit, wherein the selection group comprises the first BTS and the second BTS; and~~

determine a plurality of second network addresses for communications to the mobile unit based on the selection group hierarchy; and

forward the outbound packet to the first BTS and the second BTS based on the determination.

3. (Original) The system of Claim 1, further comprising a roam management module operable to:

monitor a quality metric associated with communications between the mobile unit and the first BTS;

determine that the quality metric has fallen below a threshold;

direct the router to select from graded packets associated with the mobile unit received from the first BTS and the second BTS;

direct the first BTS and the second BTS to communicate with the mobile unit; and

direct the mobile unit to communicate with the first BTS and the second BTS.

4. (Original) The system of Claim 1, further comprising a roam management module operable to:

monitor selection criteria associated with communications between the mobile unit and the first BTS and communications between the mobile unit and the second BTS;

select the second BTS based on the selection criteria;

direct the mobile unit to discontinue communications with first BTS;

direct the first BTS to discontinue communications with the mobile unit; and

direct the router to discontinue selecting from graded packets associated with the mobile unit received from the first BTS and the second BTS.

5. (Original) The system of Claim 4, wherein the selection criteria comprise a first signal strength for communications between the mobile unit and the first BTS and a second signal strength for communications between the mobile unit and the second BTS.

6. (Original) The system of Claim 1, wherein the mobile unit is further operable to transmit a packet encoding the information.

7. (Original) The system of Claim 1, wherein the information comprises voice information received from a user of the mobile unit.

8. (Currently amended) A network device comprising:

an interface operable to receive ~~a first graded packet from~~ selection group information, wherein the selection group information identifies a mobile unit, a first base transceiver station (BTS), and a second BTS, to receive a first graded packet from the first BTS, wherein the first graded packet encodes information received from ~~a mobile~~ the mobile unit and a first value generated by the first BTS, ~~the interface further operable~~ and to receive a second graded packet from ~~a second~~ the second BTS, wherein the second graded packet encodes the information and a second value generated by the second BTS; and

a processor operable to determine a selection group hierarchy using the selection group information, to determine a network address for communications from the mobile unit based on the selection group hierarchy, and to select one of the graded packets based on the first value and the second ~~value.~~ value;

wherein the interface is further operable to forward the selected one of the graded packets to the network address.

9. (Currently amended) ~~The network device of Claim 8, wherein:~~

~~the interface is further operable to receive selection group information, wherein the selection group information identifies the mobile unit, the first BTS and the second BTS; and~~

~~the processor is further operable to determine a first network address for communications from the mobile unit and to determine a plurality of second network addresses for communications to the mobile unit.~~

The network device of Claim 8, wherein the selection group information identifies a plurality of candidate BTSs determined in response to a signal strength associated with a primary BTS falling below a threshold.

10. (Currently amended) ~~The network device of Claim 9, wherein the interface is further operable to forward the selected one of the graded packets to the first network address.~~

The network device of Claim 8, wherein:

the interface is further operable to receive an indication to discontinue use of the selection group hierarchy and to use a primary BTS, wherein the primary BTS is one of the first BTS and the second BTS selected in response to a signal strength associated with the primary BTS rising above a threshold.

11. (Currently amended) The network device of ~~Claim 9~~ Claim 8, wherein:

the processor is further operable to determine a plurality of second network addresses for communications to the mobile unit based on the selection group hierarchy; and

the interface is further operable to receive an outbound packet that includes a destination indicating the mobile unit and to forward copies of the outbound packet to each of the second network addresses.

12. (Original) The network device of Claim 8, wherein:

the first value is at least one of a signal strength, a signal-to-noise ratio, a bit error rate, and a carrier-to-noise ratio for a wireless link between the mobile unit and the first BTS; and

the second value is at least one of a signal strength, a signal-to-noise ratio, a bit error rate, and a carrier-to-noise ratio for a wireless link between the mobile unit and the second BTS.

13. (Original) The network device of Claim 8, wherein the interface communicates packets associated with a communications session established by the mobile unit using Internet Protocol (IP) communications.

14. (Original) The network device of Claim 8, wherein the information comprises voice information received from a user of the mobile unit.

15. (Currently amended) A method for routing packets comprising:

receiving selection group information, wherein the selection group information identifies a mobile unit, a first station, and a second station;

receiving a first graded packet from ~~a first~~ the first station, wherein the first graded packet encodes information received from ~~a mobile~~ the mobile unit and a first value generated by the first station;

receiving a second graded packet from ~~a second~~ the second station, wherein the second graded packet encodes the information and a second value generated by the second ~~station; and~~ station;

determining a selection group hierarchy using the selection group information;

determining a network address for communications from the mobile unit based on the selection group hierarchy;

selecting one of the graded packets based on the first value and the second ~~value.~~ value; and

forwarding the selected one of the graded packets to the network address.

16. (Currently amended) ~~The method of Claim 15, further comprising:~~

~~receiving selection group information, wherein the selection group information identifies the mobile unit, the first station and the second station;~~

~~determining a first network address for communications from the mobile unit; and~~

~~determining a plurality of second network addresses for communications to the mobile unit.~~

The method of Claim 15, wherein the selection group information identifies a plurality of candidate BTSs determined in response to a signal strength associated with a primary BTS falling below a threshold.

17. (Currently amended) ~~The method of Claim 16, further comprising forwarding the selected one of the graded packets to the first network address.~~

The method of Claim 15, further comprising:

receiving an indication to discontinue use of the selection group hierarchy and to use a primary BTS, wherein the primary BTS is one of the first BTS and the second BTS selected in response to a signal strength associated with the primary BTS rising above a threshold.

18. (Currently amended) The method of ~~Claim 16~~ Claim 15, further comprising:

determining a plurality of second network addresses for communications to the mobile unit based on the selection group hierarchy;

receiving an outbound packet that includes a destination indicating the mobile unit; and

forwarding copies of the outbound packet to each of the second network addresses.

19. (Original) The method of Claim 15, wherein:

the first value is at least one of a signal strength, a signal-to-noise ratio, a bit error rate, and a carrier-to-noise ratio for a wireless link between the mobile unit and the first station; and

the second value is at least one of a signal strength, a signal-to-noise ratio, a bit error rate, and a carrier-to-noise ratio for a wireless link between the mobile unit and the second station.

20. (Original) The method of Claim 15, further comprising communicating packets associated with a communications session established by the mobile unit using Internet Protocol (IP) communications.

21. (Original) The method of Claim 15, wherein the information comprises voice information received from a user of the mobile unit.

22. (Currently amended) Software for routing packets, the software embodied on a computer readable medium and operable to:

receive selection group information, wherein the selection group information identifies a mobile unit, a first station, and a second station;

receive a first graded packet from ~~a first~~ the first station, wherein the first graded packet encodes information received from ~~a mobile~~ the mobile unit and a first value generated by the first station;

receive a second graded packet from ~~a second~~ the second station, wherein the second graded packet encodes the information and a second value generated by the second ~~station; and~~ station;

determine a selection group hierarchy using the selection group information;

determine a network address for communications from the mobile unit based on the selection group hierarchy;

select one of the graded packets based on the first value and the second ~~value.~~ value; and

forward the selected one of the graded packets to the network address.

23. (Currently amended) ~~The software of Claim 22, further operable to:~~

~~receive selection group information, wherein the selection group information identifies the mobile unit, the first station and the second station;~~

~~determine a first network address for communications from the mobile unit; and~~

~~determine a plurality of second network addresses for communications to the mobile unit.~~

The software of Claim 22, wherein the selection group information identifies a plurality of candidate BTSs determined in response to a signal strength associated with a primary BTS falling below a threshold.

24. (Currently amended) ~~The software of Claim 23, further operable to forward the selected one of the graded packets to the first network address.~~

The software of Claim 22, further operable to:

receive an indication to discontinue use of the selection group hierarchy and to use a primary BTS, wherein the primary BTS is one of the first BTS and the second BTS selected in response to a signal strength associated with the primary BTS rising above a threshold.

25. (Currently amended) The software of ~~Claim 23~~ Claim 22, further operable to :

determine a plurality of second network addresses for communications to the mobile unit based on the selection group hierarchy;

receive an outbound packet that includes a destination indicating the mobile unit; and

forward copies of the outbound packet to each of the second network addresses.

26. (Original) The software of Claim 22, wherein:

the first value is at least one of a signal strength, a signal-to-noise ratio, a bit error rate, and a carrier-to-noise ratio for a wireless link between the mobile unit and the first station; and

the second value is at least one of a signal strength, a signal-to-noise ratio, a bit error rate, and a carrier-to-noise ratio for a wireless link between the mobile unit and the second station.

27. (Original) The software of Claim 22, further operable to communicate packets associated with a communications session established by the mobile unit using Internet Protocol (IP) communications.

28. (Original) The software of Claim 22, wherein the information comprises voice information received from a user of the mobile unit.

29. (Currently amended) A network device comprising:

means for receiving selection group information, wherein the selection group information identifies a mobile unit, a first station, and a second station;

means for receiving a first graded packet from ~~a first~~ the first station, wherein the first graded packet encodes information received from ~~a mobile~~ the mobile unit and a first value generated by the first station;

means for receiving a second graded packet from ~~a second~~ the second station, wherein the second graded packet encodes the information and a second value generated by the second ~~station; and~~ station;

means for determining a selection group hierarchy using the selection group information;

means for determining a network address for communications from the mobile unit based on the selection group hierarchy;

means for selecting one of the graded packets based on the first value and the second ~~value.~~ value; and

means for forwarding the selected one of the graded packets to the network address.

30. (Currently amended) ~~The network device of Claim 29, further comprising:~~

~~means for receiving selection group information, wherein the selection group information identifies the mobile unit, the first station and the second station;~~

~~means for determining a first network address for communications from the mobile unit; and~~

~~means for determining a plurality of second network addresses for communications to the mobile unit.~~

The network device of Claim 29, wherein the selection group information identifies a plurality of candidate BTSs determined in response to a signal strength associated with a primary BTS falling below a threshold.

31. (Currently amended) ~~The network device of Claim 30, further comprising means for forwarding the selected one of the graded packets to the first network address.~~

The network device of Claim 29, further comprising:

means for receiving an indication to discontinue use of the selection group hierarchy and to use a primary BTS, wherein the primary BTS is one of the first BTS and the second BTS selected in response to a signal strength associated with the primary BTS rising above a threshold.

32. (Currently amended) The network device of ~~Claim 30~~ Claim 29, further comprising:

means for determining a plurality of second network addresses for communications to the mobile unit based on the selection group hierarchy;

means for receiving an outbound packet that includes a destination indicating the mobile unit; and

means for forwarding copies of the outbound packet to each of the second network addresses.

33. (Original) The network device of Claim 29, wherein:

the first value is at least one of a signal strength, a signal-to-noise ratio, a bit error rate, and a carrier-to-noise ratio for a wireless link between the mobile unit and the first station; and

the second value is at least one of a signal strength, a signal-to-noise ratio, a bit error rate, and a carrier-to-noise ratio for a wireless link between the mobile unit and the second station.

34. (Original) The network device of Claim 29, further comprising means for communicating packets associated with a communications session established by the mobile unit using Internet Protocol (IP) communications.

35. (Original) The network device of Claim 29, wherein the information comprises voice information received from a user of the mobile unit.

36. (Currently amended) ~~A packet generated by a base transceiver station (BTS) in response to receiving voice information from a mobile unit via a wireless link, the packet comprising:~~

~~a first identifier for the mobile unit;~~

~~content including the voice information; and~~

~~a metric indicating quality of the wireless link.~~

A communications system comprising:

a mobile unit operable to transmit information;

a plurality of base transceiver stations (BTSs) each operable to receive the information, to determine a value for a metric associated with communications between the mobile unit and the respective BTS, and to generate a graded packet encoding the value and the information;

a plurality of routers each operable to receive selection group information, wherein the selection group information identifies the mobile unit and the plurality of BTSs, to determine a selection group hierarchy using the selection group information, to determine a network address of a second router for communications from the mobile unit based on the selection group hierarchy, to receive a plurality of graded packets, to select one of the graded packets for further communication, and to forward the selected one of the graded packets to the second router using the network address.

37. (Currently amended) The ~~packet~~ communications system of Claim 36, ~~further comprising~~ wherein each graded packet includes an identifier for the mobile unit, content including voice information, a metric indicating quality of a wireless link, and a packet identifier that allows ~~a router~~ the routers to select between the respective graded packet and ~~a second packet~~ other graded packets having ~~an identical packet identifier, the second packet generated by a second base transceiver station (BTS) in response to receiving the voice information from the mobile unit via a second wireless link.~~ identical packet identifiers.

38. (Currently amended) The ~~packet of Claim 36~~ communication system of Claim 37, wherein the metric is at least one of a signal strength, a signal-to-noise ratio, a bit error rate, and a carrier-to-noise ratio for the wireless link.